

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hiroyuki FUMIOKA
Title: SOCKET FOR DIALYZER
Appl. No.: Unassigned
Filing Date: 03/13/2002
Examiner: Unassigned
Art Unit: Unassigned

PRELIMINARY AMENDMENT

Commissioner for Patents
Box PATENT APPLICATION
Washington, D.C. 20231

Sir:

Prior to examination of the above-identified application, Applicant respectfully request that the following amendments be entered into the application:

In the Claims:

Please delete claims 7, 8, and 10 without prejudice or disclaimer and in accordance with 37 CFR §1.121, please substitute for original claims 2-6, and 9 the following rewritten version of the same claims, as amended. The changes are shown explicitly in the attached "Version With Markings to Show Changes Made."

2. (Amended) The socket for a dialyzer according to Claim 1, wherein a front end portion of the holder constitutes a protrusion that externally protrudes from a front end surface of the outer sleeve, and when cleaning the socket, the locking ball can be released by pressing said protrusion of the holder to retract the holder, thereby canceling a constraint state of the locking ball.

3. (Amended) The socket for a dialyzer according to Claim 2, wherein the protrusion on the front end portion of the holder and front end surface of the outer sleeve are configured to be visually discriminable.

4. (Amended) The socket for a dialyzer according to Claim 1, wherein the coupling part of the socket main body has a communication hole constituting an internal passage for the cleaning solution that is distant rearward from the accommodation hole for the locking ball by a predetermined distance, and when cleaning the socket, the cleaning solution penetrates into the internal passage between the accommodation hole for the locking ball and the communication hole.

5. (Amended) The socket for a dialyzer according to Claim 1, wherein the coupling part of the socket main body has, on an inner wall thereof, an end face seal that abuts against an end of the plug of the dialyzer.

6. (Amended) A method for cleaning a socket for a dialyzer using a cleaning adapter, the socket connecting a plug of the dialyzer and a dialysate tube for supplying or discharging a dialysate,

wherein said socket for a dialyzer comprises a socket main body having a coupling part to be fitted onto the plug of the dialyzer and a cylindrical part for connecting the dialysate tube, an outer sleeve fitted onto the coupling part of the socket main body, and a spring-biased holder for pressing a locking ball, the holder being accommodated between the socket main body and the outer sleeve and capable of moving back and forth, the coupling part of said socket main body having a communication hole constituting an internal passage for the cleaning solution that is distant rearward from the accommodation hole for the locking ball by a predetermined distance, and a front end portion of said holder constituting a protrusion that externally protrudes from a front end surface of the outer sleeve,

said cleaning adapter comprises a cylindrical adapter main body that has socket accommodation rooms each for accommodating a coupling part of a socket provided on both sides of a block via a sealing member and a small-diameter passage for connecting the respective accommodation rooms formed in the block to pass therethrough, and locking collars each for locking the socket that are fitted onto the both ends of the adapter main body, and

the coupling part of the socket is inserted into a socket accommodation room of the adapter main body, the holder of the socket is retracted by the protrusion to release the locking ball as the adapter main body and the socket are locked, and then

the cleaning solution is circulated through the adapter main body, thereby the inner wall of the socket and contents in the internal passage are exposed to the cleaning solution.

9. (Amended) A cleaning adapter used for cleaning a socket for dialyzer, the socket comprising a socket main body having a coupling part to be fitted onto the plug of the dialyzer and a cylindrical part for connecting the dialysate tube, an outer sleeve fitted onto the coupling part of the socket main body, and a spring—biased holder for pressing a locking ball, the holder being accommodated between the socket main body and the outer sleeve and capable of moving back and forth, and the coupling part of the socket main body having a communication hole constituting an internal passage for the cleaning solution that is distant rearward from the accommodation hole for the locking ball by a predetermined distance,

wherein the cleaning adapter comprises a cylindrical adapter main body that has socket accommodation rooms each for accommodating a coupling part of a socket on both sides of a block and a small-diameter passage for connecting the respective accommodation rooms formed in the block to pass therethrough, and locking collars each for locking the socket that are fitted onto the both ends of the adapter main body, and a pressing protrusion for pressing a protrusion on the holder is provided on a bottom wall of the socket accommodation room of the adapter main body, and the coupling part of the socket is inserted into a socket accommodation room of the adapter main body, the holder is retracted by the protrusion to release the locking ball to lock the adapter main body and the socket, and then the cleaning solution is circulated through the adapter main body, thereby the inner wall of the socket and contents in the internal passage are exposed to the cleaning solution.

REMARKS

Applicant respectfully requests that the foregoing amendments to Claims 2-6 and 9 be entered in order to avoid this application incurring a surcharge for the presence of one or more multiple dependent claims.

Respectfully submitted,

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Version With Markings to Show Changes Made

2. (Amended) The socket for a dialyzer according to Claim 1, [characterized in that] wherein a front end portion of the holder constitutes a protrusion that externally protrudes from a front end surface of the outer sleeve, and when cleaning the socket, the locking ball can be released by pressing said protrusion of the holder to retract the holder, thereby canceling a constraint state of the locking ball.

3. (Amended) The socket for a dialyzer according to [Claim 1 or 2] Claim 2, [characterized in that] wherein the protrusion on the front end portion of the holder and front end surface of the outer sleeve are configured to be visually discriminable.

4. (Amended) The socket for a dialyzer according to [any one of Claims 1 to 3] Claim 1, [characterized in that] wherein the coupling part of the socket main body has a communication hole constituting an internal passage for the cleaning solution that is distant rearward from the accommodation hole for the locking ball by a predetermined distance, and when cleaning the socket, the cleaning solution penetrates into the internal passage between the accommodation hole for the locking ball and the communication hole.

5. (Amended) The socket for a dialyzer according to [any one of Claims 1 to 4] Claim 1, [characterized in that] wherein the coupling part of the socket main body has, on an inner wall thereof, an end face seal that abuts against an end of the plug of the dialyzer.

6. (Amended) A method for cleaning a socket for a dialyzer using a cleaning adapter, the socket connecting a plug of the dialyzer and a dialysate tube for supplying or discharging a dialysate,

[characterized in that] wherein said socket for a dialyzer comprises a socket main body having a coupling part to be fitted onto the plug of the dialyzer and a cylindrical part for connecting the dialysate tube, an outer sleeve fitted onto the coupling part of the socket main body, and a spring-biased holder for pressing a locking ball, the holder being accommodated between the socket main body and the outer

sleeve and capable of moving back and forth, the coupling part of said socket main body having a communication hole constituting an internal passage for the cleaning solution that is distant rearward from the accommodation hole for the locking ball by a predetermined distance, and a front end portion of said holder constituting a protrusion that externally protrudes from a front end surface of the outer sleeve,

said cleaning adapter comprises a cylindrical adapter main body that has socket accommodation rooms each for accommodating a coupling part of a socket provided on both sides of a block via a sealing member and a small-diameter passage for connecting the respective accommodation rooms formed in the block to pass therethrough, and locking collars each for locking the socket that are fitted onto the both ends of the adapter main body, and

the coupling part of the socket is inserted into a socket accommodation room of the adapter main body, the holder of the socket is retracted by the protrusion to release the locking ball as the adapter main body and the socket are locked, and then the cleaning solution is circulated through the adapter main body, thereby the inner wall of the socket and contents in the internal passage are exposed to the cleaning solution.

9. (Amended) A cleaning adapter used for cleaning a socket for dialyzer, the socket comprising a socket main body having a coupling part to be fitted onto the plug of the dialyzer and a cylindrical part for connecting the dialysate tube, an outer sleeve fitted onto the coupling part of the socket main body, and a spring—biased holder for pressing a locking ball, the holder being accommodated between the socket main body and the outer sleeve and capable of moving back and forth, and the coupling part of the socket main body having a communication hole constituting an internal passage for the cleaning solution that is distant rearward from the accommodation hole for the locking ball by a predetermined distance,

[characterized in that] wherein the cleaning adapter comprises a cylindrical adapter main body that has socket accommodation rooms each for accommodating a coupling part of a socket on both sides of a block and a small-diameter passage for connecting the respective accommodation rooms formed in the block to pass therethrough, and locking collars each for locking the socket that are fitted onto the both ends of the adapter main body, and a pressing protrusion for pressing a

protrusion on the holder is provided on a bottom wall of the socket accommodation room of the adapter main body, and

the coupling part of the socket is inserted into a socket accommodation room of the adapter main body, the holder is retracted by the protrusion to release the locking ball to lock the adapter main body and the socket, and then the cleaning solution is circulated through the adapter main body, thereby the inner wall of the socket and contents in the internal passage are exposed to the cleaning solution.

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